

REMARKS/ARGUMENTS

By this amendment, claims 1-5, 10 and 12 have been canceled, claims 6-9 and 11 have been amended and claims 13 and 14 have been added. Accordingly, claims 6-9, 11, 13 and 14 are pending in the present application.

Claims 1-5 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,736,218 to Iwata, et al.; under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,129,871 to Suzuki, et al.; and under 35 U.S.C. §103(a) as being unpatentable over JP 06198610 in view WO 95/05275. With the cancellation of claims 1-5 these rejections are deemed moot.

Claims 6-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP 61066604 in view of WO 95/05275. Applicants respectfully traverse this rejection.

The present invention, as recited in amended claim 6, is directed to a method for manufacturing ligneous material wherein wood fibers which are acetylated are bound together with wood fibers which are not acetylated with a binder containing polyisocyanate such that the resulting composite has an average degree of the acetylation, measured in weight percent gain, of 7% or greater.

When acetylated wood fibers and non-acetylated wood fibers are bound together using a binder, wood lumber which is more uniform than one obtained using wood chips can be obtained. In addition, since the amount of acetylated wood fiber can be decreased by mixing acetylated wood fiber with non-acetylated wood fiber, the manufacturing costs of the wood lumber can be decreased. Further, according to the present invention, the mixing of the acetylated and non-acetylated wood fibers so as to maintain the average acetylation degree of 7% or greater does not adversely impact the properties of the resulting wood lumber.

In contrast to the present invention as recited in claim 6, JP 61066604 discloses a method for preparing particle board by mixing acetylated wood chips with non-acetylated wood chips with an adhesive. JP 61066604 describes that, by adding the wood chips to a mixture of acetic acid and an acetylation catalyst, and carrying out the reaction at about 120-180°C for at least a few minutes, acetylation in an amount of 15-20% of the total

hydroxyl groups in the cellulose molecules can be obtained. JP 61066604, however, does not teach or suggest the use of wood fibers.

WO95/05275 does not remedy any of the deficiencies of JP 61066604. WO95/05275 has been cited for use of a binder for preparing a wood composite. WO95/05275, however, does not teach or suggest the acetylation of wood fibers, let alone the combination of acetylated and non-acetylated wood fibers such that the resulting composite has a degree of acetylation, measured in weight percent gain, of 7% or greater as required by independent claim 6.

Therefore, JP 61066604 and WO 95/05275, either alone or combined, do not teach or suggest binding acetylated wood fibers and non-acetylated wood fibers to form a composite having an average degree of acetylation, measured in weight percent gain, of 7% or greater. Accordingly, it is respectfully submitted that independent claim 6 patentably distinguishes over the art of record.

Claims 7-9, 11, 13 and 14 depend directly from independent claim 6 and include all of the limitations found therein. Each of these dependent claims include additional limitations which, in combination with the limitations of independent claim 6, are neither disclosed nor suggested in the prior art of record. Accordingly, claims 7-9, 11, 13 and 14 are likewise patentable.

In view of the foregoing, favorable consideration of the amendments to claims 6-9 and 11, favorable consideration of new claims 13 and 14, and allowance of the application with claims 6-9, 11, 13 and 14 is respectfully and earnestly solicited.

Dated: August 7, 2002

Respectfully submitted,

By Richard LaCava

Richard LaCava

Registration No.: 41,135

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

1177 Avenue of the Americas
41st Floor

New York, New York 10036-2714
(212) 835-1400

Attorneys for Applicant

Appendix A
Version With Markings to Show Changes Made

CLAIMS:

6. (Amended) A method for manufacturing ligneous material, the method comprising [the steps of]:

preparing [a] first wood [elements] fibers which are acetylated with a first degree of acetylation, and [a] second wood [elements] fibers which are [optionally] not acetylated [with a second degree of acetylation], wherein said first degree of acetylation measured in weight percent gain is 7% or greater [and said second degree of acetylation is less than said first degree of acetylation]; and

binding [a third wood elements with a binder containing polyisocyanate, wherein the third wood elements comprises] a first amount of said first wood [elements] fibers and a second amount of said second wood [elements] fibers with a binder containing polyisocyanate to form a composite, wherein the average degree of acetylation measured in weight percent gain of said [third wood elements] composite is 7% or greater.

7. (Amended) [A] The method for manufacturing ligneous material according to claim 6, wherein said first wood [elements] fibers are acetylated by placing [a] wood [elements] fibers in a gas or liquid which contains acetyl groups.

8. (Amended) [A] The method for manufacturing ligneous material according to claim 6, wherein said first amount is 50% by weight or greater of the total amount of said first and second wood fibers and said second amount is less than 50% by weight of the total amount of said first and second wood fibers.

9. (Amended) [A] The method for manufacturing ligneous material according to claim 6, wherein said average degree of acetylation measured in weight percent gain of said [third wood elements] composite is 7 to 18%.

11. (Amended) [A] The method for manufacturing ligneous material according to claim 6, wherein said binder contains polymeric 4,4-diphenylmethane diisocyanate.